

**BEFORE THE
NATURAL RESOURCES COMMISSION
OF THE
STATE OF INDIANA**

IN THE MATTER OF:

SMCRA WATER QUALITY)	Administrative Cause
AMENDMENTS TO)	Number: 02-034R
IMPLEMENT 327 IAC 2)	(LSA #02-104F)

**REPORT OF PUBLIC HEARING
AND WRITTEN PUBLIC COMMENTS,
RESPONSES BY THE DIVISION OF RECLAMATION,
AND PRESENTATION FOR FINAL ADOPTION**

1. REPORT OF PUBLIC HEARING AND WRITTEN PUBLIC COMMENTS

On May 1, 2002 a “notice of intent” was published in the INDIANA REGISTER to adopt rules for groundwater quality standards to govern surface coal mining activities. The proposed rule amendments were published in the INDIANA REGISTER on September 1, together with notice of a hearing to be held on September 30, 2002 in Jasonville. Notice of the public hearing was also published on August 31, 2002 in the Indianapolis DAILY STAR, a newspaper of general circulation in Marion County, Indiana, as well as in the Evansville COURIER & PRESS on September 2, 2002. The public hearing was listed in the online calendars of the Department of Natural Resources and the Natural Resources Commission and was featured on the Commission website as a current issue. In addition, the public hearing was the subject of media attention in the coal-mining region of southwestern Indiana.¹ The public hearing was conducted as scheduled. Following are summaries of comments received during the rule adoption process:

¹ By letter dated December 23, 2002, Paul J. Ehret wrote to Indiana Senator Luke Kenley, Chairperson of the Administrative Rules Oversight Committee, to provide a notification of extension of time to complete rule adoption under IC 4-22-2-25. The letter reported the agency anticipated the rule would be approved or deemed approved by the Governor or be withdrawn no later than August 1, 2003. This notice was published in the February 1, 2003 INDIANA REGISTER.

Agenda Item #16

Ronald Baker of Terre Haute spoke during the public hearing held on September 30 in Jasonville. He said the proposed rules should not allow potentially adverse impacts to groundwater to extend beyond a mine's permit boundaries. "I don't see how they can get a permit for any area they do not own." He said mining companies also should not pollute water within their own boundaries. Baker complained that mining operations were also draining water supply wells.

Lois Byrd of Terre Haute wrote on October 25, 2002:

I am asking that the proposed ground water rule be changed so that: the ground water management zone does not extend beyond the permit boundary and that the ground water management zone should extend no closer than 100 ft. of a drinking water well.

Dean Chambers of Carlisle spoke during the public hearing held in Jasonville on September 30, 2002. He said he did not currently have a water pollution concern. Instead, he said, "I've lost my groundwater. I have two problems. One is the [lack of] water, and the other is dust."

Glen Coffey of Pimento said that his neighbors were having problems with the production of their water supply wells. "If [mining] does affect my well, what do I do about it?" The Division of Reclamation spoke general to the issue of well failures and offered to speak privately with the citizen.

Dave Cormican of Farmersburg spoke during the public hearing. He said he had a surface coal mine within ¼ mile of his home. "You don't have to worry about pollution if you don't have any water." He said he has had his well tested for productivity and asked the DNR's Division of Reclamation: "Should I have the well tested more often the closer I get?" Bruce Stevens, Director of the Division of Reclamation, outlined responsibilities of mining operations when they approach within 1,000 feet. The Division also offered to speak privately with the citizen.

Tom Fitzgerald of the Kentucky Resources Council, Inc. on November 1, 2002 sent an email:

Agenda Item #16

These comments are submitted in support of the concerns expressed by the Hoosier Environmental Council concerning the proposed groundwater standards for areas in which surface coal mining operations occur.

The Kentucky Resources Council, Inc., is a non-profit environmental advocacy organization incorporated under the laws of the Commonwealth of Kentucky and dedicated to prudent use and conservation of the natural resources of the state. Through the National Citizen's Coal Law Project, KRC delivers legal and technical assistance to coal field organizations and individuals across the nation's coalfields on matters relating to public health, safety and environmental protection.

KRC has reviewed the proposed rules, and offers these concerns:

1. To The Extent That The Rules Contemplate Allowing Contaminants Associated With Surface Coal Mining Operations To Migrate From Mine Property Onto Lands Of Others, The Rules Effect A Taking By Physical Intrusion Under Sanction of State Law, and A Trespass.

The allowance of a three-hundred (300) foot management zone in which the numerical standards for groundwater protection will not be applied violates both the provisions of the 1977 Surface Mining Control and Reclamation Act, and constitutes an impermissible "taking" of property to the extent that the 300-foot provision intrudes on property not owned by the permittee.

The proposed groundwater management zone concept gives the mining company a zone that may extend beyond the permit boundary *and the* property boundary for a proposed mining operation, in which the operator is relieved of responsibility to meet groundwater standards. So long as there is no current drinking water well within that area, the proposal proposes to shield the operator from responsibility for contamination even where that contamination may migrate off-site onto (or beneath, as the case may be) properties that are neither *owned* by the operator, and/or for which the operator may not have the *right of entry*.

The section following will address the inconsistency of this proposal with the requirements of the federal mining laws (30 U.S.C. 1202 et seq.). This section focuses on the constitutional and common-law problems created by a proposal inviting waste of the groundwater resource extending potentially onto the lands of others.

Initially, as between the operator and neighboring landowners, contamination of the groundwater resource is actionable under either the theory of trespass, or of nuisance (unreasonable interference with use and enjoyment of property). The state should not be in the business of inviting operators to violate the property rights of third parties.

There is a more fundamental problem with the proposal, however. Placing the state's imprimatur on contamination of the property of another by allowing a 300-foot "zone of non-responsibility" effects a taking of that other person's property by physical intrusion, and places the state in a position of financial vulnerability

Agenda Item #16

for its part in encouraging such contamination by relaxing standards of responsibility that would otherwise inure to the management of the groundwater resource by the mine operator.

There can be no serious dispute that the DNR is without constitutional authority to arbitrarily allow an entity, under color of state law and with the full blessing of the state, to commit a trespass through direct physical invasion into the subsurface of the property of another. Any proposal to leave residual contamination under another's lands, as between the private parties, constitutes an intentional trespass. The blessing of such contamination by the state amounts to a usurpation of the rights of third party property owners in derogation of the Indiana and U.S. Constitutions.

There is little doubt that such a direct physical intrusion into another's land and water resources constitutes a compensable taking. United States v. Causby, 328 U.S. 256 (1946); Griggs v. County of Allegheny, Pennsylvania, 369 U.S. 84 (1962).

Direct physical appropriation and invasion of another's land is particularly disfavored by law:

The historical rule that a permanent physical occupation of another's property is a taking has more than tradition to commend it. Such an appropriation is perhaps the most serious form of invasion of an owner's property interests. . . . Moreover, an owner suffers a special kind of injury when a *stranger* directly invades and occupies the owner's property.

Loretto v. Teleprompter Manhattan CATV Corp., 458 U.S. 419, 435-8 (1982).

The invasion of another's land and usurpation of the land use and groundwater potential through subsurface contamination is no less disfavored than the direct possession of the land above the surface.

There is a second aspect of the "takings" issue implicated here. By allowing the groundwater management zone to extend beyond property boundaries, the proposal effects a reverse zoning of lands, diminishing the value of those lands by removing protections of the groundwater resource. Since it is only where there is an existing drinking water well within that 300-foot zone that the zone would be constricted, the ability of an adjoining landowner (or even a current landowner who has granted the right to mine) would suffer diminished ability to utilize the groundwater resource for other beneficial uses at present or in the future. Such diminution is inappropriate under the mining laws, and demands compensation under the common law and constitution.

The DNR is charged with protecting natural resources and the environment. While KRC believes that the groundwater management zone concept violates DNR's obligations as the "state regulatory authority" under 30 U.S.C. 1253(a)(1)-(7), and is inconsistent with the standards and requirements of SMCRA, to the extent that any such zone is allowed it **cannot allow** contamination above background levels to migrate onto lands owned by others. Additionally, since

Agenda Item #16

DNR is proposing to lower the bar of groundwater management by imposing this "responsibility-free zone" such a zone cannot be allowed even onto lands within the permit area unless there has been an express and knowing waiver from the landowner allowing such a relaxed level of groundwater protection.

2. The Proposal Violates The Operators Obligations Under SMCRA With Respect To Protection of the Hydrologic Balance On and Off-The Minesite

Allowing a waiver of the application of numerical standards that the DNR has determined are otherwise necessary and appropriate for protection of the groundwater resource violates several discrete provisions of SMCRA.

Initially, the performance standards and permitting process are premised on the concept that mining is a "temporary" use of land. By allowing permanent contamination and diminution of ground water quality not only within the mining area but within an adjoining area of 300 feet from the minesite, the rule violates 30 U.S.C. 1265(b)(10) by failing to minimize the disturbance to the prevailing hydrologic balance and by failing to minimize disturbances to the quality of water in ground water systems at the mine site and in associated off-site areas.

Additionally, by limiting the responsibility of the mining operator to protection only of drinking water wells, the Act invites the operator to damage groundwater resources currently being used for domestic, residential, commercial, agricultural and other beneficial uses that must be protected under the mining law, and which, in the case of domestic and residential uses, must be replaced if damaged by underground mining, or if damaged by surface mining, must be replaced if used for a wider range of uses than merely drinking water.

By pegging the level of responsibility at 300 feet from the mining operation, and allowing a waiver of responsibility to attain numerical standards within that zone, the proposal violates the water protection and replacement requirements and directly conflicts with both 30 U.S.C. 1307 and 1309(a)(2).

In closing, there is little question that the proposed rule is a material amendment to the state regulatory program for surface coal mining operations. In order to prevent conflict, the state should *not* finalize the rule until it is first submitted for review to the federal Office of Surface Mining for review as a state program amendment in a manner consistent with 30 CFR 732.17(g) and 30 CFR 733.11.

Thank you for your consideration of these concerns.

Jack Jarrett of Sullivan spoke during the September 30 public hearing. He emphasized that the potentially adverse impacts of mining on groundwater quality should not be authorized to extend beyond the mine's permitted area.

Agenda Item #16

Jeff Jarrett of Sullivan also spoke during the public hearing. He urged that Groundwater Management Zones should not extend outside the permitted boundaries of a coal mine. He inquired how monitoring would be performed on land not owned by the mining company and reflected it would be unfair to adjacent property owners to bear the cost of monitoring. Bruce Stevens responded that a mining company would need a right of entry to perform testing on an adjacent owner's land, and the costs associated with testing would be satisfied by the mining company.

Barbara Marlowe of Terre Haute complained during the public hearing in Jasonville that her home was ruined by blasting at a surface coal mine. "There should be something to protect our properties." She added, "We should be able to prevent all of our water pollution."

Jeanne Melchior of Protect Our Woods wrote on September 16, 2002:

I am unable to attend the public hearing on the groundwater standard rule to be held Monday September 30 in Jasonville, but I would like to request that the proposed groundwater rule incorporate the following changes:

The groundwater management zone should not be able to cross the permit boundary. No company should have the right to contaminate an individual's property, including their well or source of water. The groundwater management zone should not be allowed to extend any closer than 100 feet of a well. We need to protect Indiana's groundwater, and strengthening the rule by removing this loophole would be a step in the right direction.

Bill Miller said during the public hearing that he was interested in protecting property rights. "It's a pretty final thing when they build a coal mine." He also complained about the activities of power plants and asked what agency was responsible for their regulation. Miller was informed the state agency most-directly responsible for the regulation of power plants was the Indiana Utility Regulatory Commission.

J. Nathan Noland, President of the Indiana Coal Council, Inc., sent an email on November 1, 2002:

The Indiana Coal Council, Inc. ("ICC") submits the following written comments on the proposed rule referenced above. The proposed rule would establish permit information requirements and performance standards to implement 327 IAC 2-11, the Ground Water Quality Standards ("GWQS") rules

Agenda Item #16

of the Indiana Water Pollution Control Board, (“IWPCB”) as applied to activities regulated by the Indiana Department of Natural Resources (“IDNR”) under the Indiana Surface Mining Control and Reclamation Act, IC 14-34 (“ISMCR”).

The Indiana Coal Council is a trade association representing approximately 90% of Indiana’s coal production. The association was formed to foster, promote, and defend the interest of Indiana’s coal producers, coal reserve holders, and other business entities related to the coal industry. All coal operators will be affected by the proposed GWQS implementation rule as published in the September 1, 2002 Indiana Register.

Our comments consist of:

1. A discussion of the background of the GWQS, protection of groundwater quality under ISMCRA, and the current rulemaking.
2. Our comments on the proposed rule which the ICC generally supports, and our suggested changes.
3. Our response to comments on the proposed rule submitted by other parties.

1. BACKGROUND

IC 13-18-17-5 provides:

Sec. 5. (a) The water pollution control board shall adopt rules under IC 4-22-2 establishing groundwater quality standards that include numeric and narrative criteria, a groundwater classification plan, and a method of determining where the groundwater quality standards must apply. The standards established under this subsection shall be used for the following purposes:

- (1) To establish minimum compliance levels for groundwater quality monitoring at regulated facilities.
- (2) To ban the discharge of effluents into potable groundwater.
- (3) To establish health protection goals for untreated water in water supply wells.
- (4) To establish concentration limits for contaminants in ambient groundwater.

(b) The following agencies shall adopt rules under IC 4-22-2 to apply the groundwater quality standards established under this section to activities regulated by the agencies:

- (1) The department.
- (2) The department of natural resources.
- (3) The state department of health.
- (4) The office of the state chemist.
- (5) The office of the state fire marshal.

The IWPCB adopted GWQS which are codified at 327 IAC 2-11. The GWQS rules classify underground waters of the state into three categories and

Agenda Item #16

establish numeric limits for specified constituents in each category. The GWQS rule also authorizes the establishment of Groundwater Management Zones (“GMZs”) by the agencies charged with implementing the GWQS.

327 IAC 2-11-9(b). IDNR is one of the agencies which is responsible for establishing GMZs. 327 IAC 2-11-2(a)(2).

The GMZ rules adopted by IDNR must provide for a default GMZ to apply where the agency’s rules do “not establish a program specific or site specific ground water management zone under subsection (b) or (c).” 327 IAC 2-11-9(d). IDNR is also free to establish “an appropriate program specific or site specific three (3) dimensional ground water management zone...” 327 IAC 2-11-9(b). Program and site specific GMZs are to be established taking into consideration several factors, including:

- “(1) Regulatory program requirements.
* * *
- (4) Hydrogeologic conditions.
* * *
- (6) Impacts to any natural resource and the environment.
* * *
- (8) Physical and chemical properties of potential contaminants.”

327 IAC 2-11-9(b).

Surface coal mining requires coal mine operators to move billions of tons of unconsolidated near surface material and deeper rock strata overlying the coal seams. A large surface mine may be required to move forty to fifty million cubic yards of overburden material per year. This overburden material is replaced as “spoil” material into the areas where the coal has been mined. As the mined area recharges with infiltrating water, primarily from surface waters, the water comes in contact with the mine spoils and begins to dissolve the naturally occurring minerals that are present, creating mine spoil “groundwater.” This occurs anytime earth materials are disturbed, exposed to the atmosphere, then re-exposed to water. You cannot mine or move earthen material (e.g. Agriculture or construction) without this impact.

Provisions of ISMCRA ensure that the effects of surface mining will be minimized or prevented, to the extent possible. ISMCRA recognizes that unavoidable mining impacts will occur. However, ISMCRA provides that surface coal mining and reclamation operations minimize disturbances to the prevailing hydrologic balance inside the permit area (I.C. 14-34-10-2(b)(13)) and be designed to prevent material damage outside the permit area. (I.C. 14-34-4-7(a)(3)). This is particularly so with respect to materials which are potentially more harmful. Acid or toxic mine drainage is to be avoided by preventing or removing water from contact with toxic producing deposits, treating drainage to reduce toxic content or keeping acid or toxic drainage from entering ground or surface water. I.C. 14-34-10-2(b)(13)(A). All debris, acid or toxic forming materials must be treated, buried, and compacted or otherwise disposed in a manner designed to prevent contamination of ground or surface water. I.C. 14-34-10-2(b)(17)(A). Backfilled spoil must be compacted where advisable to

Agenda Item #16

prevent leaching of toxic materials. I.C. 14-34-10-2(b)(4). Noncoal wastes must be placed and stored in a controlled manner in a designated area to ensure that leachate and surface runoff do not degrade surface or groundwater. 310 IAC 12-5-47. Acid or toxic forming materials must be selectively placed to control or minimize water pollution. 310 IAC 12-5-16(f)(7).

An example of such preventative measures is DNR's requirement for a toxic materials handling plan where necessary. Mine operators are required to sample and test the overburden materials to be mined. Where testing indicates potentially acid producing or toxic overburden, a plan must be approved to ensure the materials are appropriately handled.

Thus, ISMCRA requires that mine operators minimize the potential adverse effects of surface mining on groundwater to the extent possible. In recognition of the fact that mineralization of groundwater in and around the area disturbed by coal mining is an unavoidable consequence of mining, the IWPCB classified waters within the zone of influence of a coal mine at which reclamation has been completed and for which bond has been released as "limited class ground water." 327 IAC 2-11-4(d)(1). Waters within the zone of influence of an area mined before August 4, 1977² received the same classification. 327 IAC 2-11-4(d)(2).

2. ICC COMMENTS AND SUGGESTED CHANGES.

The ICC generally supports the proposed rule and believes that the IDNR Division of Reclamation staff should be complimented on its work in developing the rule proposal. We would suggest that minor improvements to the rule could be made in a few areas.

312 IAC 25-1-45.5 (New definition of "drinking water well") The ICC suggests that this definition, which applies to terminology used in proposed 312 IAC 25-6-12.5 and 25-6-76.5 to delineate GMZs, be revised as follows:

"Sec. 45.5. "Drinking water well", for the purposes of 312 IAC 25-6-12.5 and 312 IAC 25-6-76.5, means a bored, drilled, or driven shaft or a dug hole that meets each of the following:

- (1) Supplies ground water for human consumption.
- (2) Has a depth greater than its largest surface dimension.
- (3) Was located and installed in accordance with 312 IAC 13.
- (3 4) Is not permanently abandoned under 312 IAC 13-10-2."

The GMZs to be established under proposed 312 IAC 25-6-12.5 and 25-6-76.5 will not apply at drinking water wells located within the area otherwise delineated as the GMZ. Therefore, we believe that it is important that the definition of "drinking water wells" be limited to wells properly located and installed. 312 IAC 12 sets forth the standards adopted by the Natural Resources Commission for drinking water wells.

² August 4, 1977 is the effective date of the federal Surface Mining Control and Reclamation Act, 30 U.S.C. §1201 et seq.

Agenda Item #16

312 IAC 25-4-47 and 25-4-85 (permit application information requirements)

Identical new subdivisions 25-4-47(b)(9) (surface) and 25-4-85(b)(8) (underground) are proposed to be added to require permit applications to include “a plan to demonstrate compliance with “the respective new ground water quality protection performance standards for surface and underground coal mines. We support this proposed language with the understanding, based on discussion with the IDNR staff, that it is not intended to require computer modeling of anticipated groundwater quality impacts. We do not believe that the cost of such modeling would be justified, given that the limited impacts of surface coal mining on groundwater quality are both well understood and unavoidable.

312 IAC 25-6-12.5 (new groundwater quality protection performance standard – surface mining)

A new surface mining groundwater quality protection performance standard is proposed to be added as new section 25-6-12.5. Proposed subsection 25-6-12.5(c) would establish a program – specific GMZ for surface coal mines as provided for in 327 IAC 2-11-9(b). The GMZ proposed is essentially the default GMZ established by the IWPCB in 327 IAC 2-11-9(d), with specific features of surface coal mines substituted for the IWPCB terminology “potential or existing contaminant source.”

We support the proposed rule subject to the proposed revision of the definition of “drinking water well” discussed above, and based on our understanding from discussions with IDNR staff that the proposed groundwater quality protection rules will not be applied retroactively to mines at which mining was completed prior to the effective date of these rules.

312 IAC 25-6-76.5 (new groundwater quality protection performance standards –underground mining)

This proposed rule is substantially identical to proposed 312 IAC 25-6-12.5 discussed above, except that it applies to underground mines and substitutes features of underground mines for the IWPCB phrase “potential or existing contaminant source”. Our comments on proposed section 25-6-12.5 apply to this proposed section as well.

3. RESPONSE TO COMMENTS OF OTHER PARTIES.

The ICC submits the following comments in response to comments delivered at the September 30, 2002 public hearing on the rule proposed in Jasonville, Indiana. Since many of the individual comments covered common themes, they will be discussed thematically rather than comment by comment.

“Off-site damage” - Several comments, including those of the Hoosier Environmental Council (“HEC”), expressed concern that the proposed rules fail to assure that off-site damage will be prevented, particularly in connection with the potential delineation of GMZ boundaries beyond the mine

Agenda Item #16

permit boundary. They contend that this violates ISMCRA or federal SMCRA. We would suggest that these commenters have confused two different statutory performance standards.

IC 14-34-10-2(b)(24) requires coal mine operators to:

“(24) Protect offsite areas from slides or damage occurring during the surface coal mining and reclamation operations and not deposit spoil material or locate any part of the operations or waste accumulations outside the permit area.”

This statutory provision is concerned with spoil handling and stability and not with water quality.

Protection of the hydrologic balance is specifically addressed in IC 14-34-10-2(b)(13) which requires operators to:

“(13) Minimize disturbances to the prevailing hydrologic balance at the mine site and associated offsite areas and to the quality and quantity of water in surface and ground water systems during and after surface coal mining and reclamation operations...”

By complying with the specific hydrologic balance protection measures referenced above in the background section of these comments, mine operators comply with the requirement to minimize disturbances of the hydrologic balance on- and off-site. These requirements will apply whether or not the GMZ established by these rules extends beyond the permit boundary.

Several commenters stated that the proposed rules offered inadequate protection to wells, in that:

- (1) the rules do not protect non-drinking water wells;
- (2) the rules do not provide for a buffer area between wells and the GMZ.

We believe that these comments also result from confusion of different requirements. 312 IAC 25-6-25 already addresses the replacement by surface coal mine operators of a “water supply...for domestic, agricultural, industrial, or other legitimate use...where the water supply has been affected by contamination...” 312 IAC 25-6-89 provides similar protection for “drinking, domestic or residential water suppl[ies]” affected by underground mining. These regulations will apply whether or not a well is located within a GMZ.

Also the protection for private wells sought by the commenters appears to be similar to the “protection zones” provided to be established or community water system wells by IC 13-18-17-6(a). The statute specifically provides this type of protection to one category of wells, and it would be inappropriate for the Natural Resources Commission to extend that protection to another category of

Agenda Item #16

wells by rule³ (unless the rule is authorized by another statutory provision, as is 312 IAC 25-6-25).

HEC suggested that the proposed rules should require minimization of groundwater impacts within the GMZ. As discussed above, other existing ISMCRA rules already require specific measures to minimize impacts. See, e.g., 312 IAC 25-6-12(e) and -76(f); 25-6-19 and -83; 25-6-21.

HEC and the Clean Air Task Force also suggested that the proposed rules should set numeric criteria to be met within the GMZ, stating that Illinois regulations required this. The commenters did not suggest what those numeric criteria should be or how they would be derived.

We believe that the commenters have misunderstood the Illinois regulations. Illinois ground water quality standards are set forth in 35 Ill. Adm. Code Part 620. Sections 620.410, 620.420, 620.430 and 620.440 set forth the general Illinois GWQS for the various water classifications used in the Illinois rule. Section 620.250(a) authorizes the establishment of GMZs in Illinois. Section 620.450(a)(3) provides:

“3) Prior to completion of a corrective action described in Section 620.250(a), the standards as specified in Sections 620.410, 620.420, 620.430, and 620.440 are not applicable to such released chemical constituent, provided that the initiated action proceeds in a timely and appropriate manner.”

The Illinois GWQS were considered by the Indiana Ground Water Task Force as a potential model for development of the Indiana standards, but a comparison of Part 620 with 327 IAC 2-11 reveals at a glance that Indiana chose not to base its standards on the Illinois model.

Moreover, the ICC would submit that under IC 13-18-17-5 and 327 IAC 2-11, the Natural Resources Commission has no authority to set its own GWQS to apply within a GMZ. IC 13-18-17-5(a) authorizes the IWPCB to adopt GWQS. The responsibility of the Natural Resources Commission is to implement the GWQS adopted by the IWPCB, including the establishment of GMZs. 327 IAC 2-11-3(8) defines “Groundwater Management Zones” as a region “where a contaminant is or was managed to prevent or mitigate deterioration of ground water quality such that the criteria established in this rule are met at and beyond the boundary of the region.” (emphasis added).

The Clean Air Task Force commented that the proposed rules should prohibit degradation of wells from pre-mining quality, even if applicable GWQS criteria were not exceeded. The IWPCB has already adopted rules prohibiting degradation of drinking water and non-drinking water wells in 327 IAC 2-11-2(e) and -(f) respectively. These requirements were directly enforceable on the effective date of 327 IAC 2-11 and do not require the adoption of rules by any other agency. 327 IAC 2-11-2(g). Also, as discussed above, existing ISMCRA rules protect water supplies contaminated by coal mining.

³ IC 13-18-17-6(a) specifically delegates the authority and responsibility to adopt well protection rules to the IWPCB.

Agenda Item #16

The Clean Air Task Force suggested that GMZs should not be established for coal combustion waste (“CCW”) disposal sites, and that monitoring should be required for CCW disposal. These suggestions are neither well-founded nor practical.

The IDNR staff after a long process of study and public input has developed a non-rule policy for regulation of CCW at coal mines which prescribes both disposal techniques and monitoring requirements. The Natural Resources Commission should not reopen these issues in this rulemaking.

As a practical matter, IDNR only regulates CCW disposal which occurs at coal mines. Under the IDNR CCW policy, CCW disposal occurs only in mined out areas. There is no way to establish a GMZ for the mined area without establishing a GMZ for the CCW disposal area contained within it. There is no way to monitor the impacts of CCW disposal separate from the impacts of mining. To the extent that the commenter may be suggesting that the Natural Resources Commission establish GWQS criteria for CCW constituents that would apply within a coal mine GMZ, we believe that such an approach is inconsistent with the allocation of rulemaking authority in IC 13-18-17-5 for the reasons explained above in response to the comment suggesting that numeric criteria applicable within the GMZ be established in these rules. We also believe that the suggestion would be impracticable, due to the impossibility of separating the impacts of mining and CCW disposal.

HEC commented that in no instance should the GMZ established by these proposed rules extend beyond the permit boundary. This comment was based on the same misunderstanding of the “off-site damage” statutory performance standard discussed above and should be rejected.

Several comments suggested the addition to the proposed rule of provisions which are clearly beyond the scope of this rulemaking. The Clean Air Task Force recommended requiring notice to landowners when the coal is leased that their land could be included in a GMZ. Assuming that coal leasing is within the jurisdiction of the Natural Resources Commission, any proposal such as this would have to be the subject of a new rulemaking.

Similarly Jack Jarrett commented that permitting of uncontrolled property should not be allowed. Assuming that the Natural Resources Commission wished to revisit this contentious issue, it would need to be considered in a new rulemaking.

Several commenters expressed concern about possible loss of groundwater due to coal mining. While these comments are also beyond the scope of this rulemaking, the ICC would suggest that these concerns are already addressed by the existing water replacement regulations discussed above.

The Clean Air Task Force commented that coal mine reclamation bonds should not be released without long-term groundwater quality monitoring. The comments do not explain what constituents are proposed to be monitored or what criteria for bond release are proposed.

Agenda Item #16

The ICC suggests that the comments are not well founded. Criteria for bond release are set forth in IC 14-34-6-13, which makes no provision for long-term groundwater quality monitoring. Even assuming that long-term groundwater quality monitoring as a condition of bond release were legally supportable, it would have unintended consequences which would militate against its adoption on policy grounds.

Since the events of September 11, 2001, surety bonding has become more difficult to obtain as a result of the general tightening of insurance markets. The Clean Air Task Force proposal for long-term groundwater quality monitoring prior to bond release would lengthen sureties' liability periods and make reclamation bonds more difficult to obtain. Superimposed on the general tightening of the bond market, this result could render it impossible for some coal mine operators to obtain the surety bond coverage required under IC 14-34-6, possibly driving smaller operators out of business.

The ICC appreciates the opportunity to comment on these proposed rules.

Mike Smith wrote on October 25, 2002: "I want all safeguards to keep my drinking water safe. I want my well safe and my property safe."

Marietta Smith wrote on October 4, 2002:

We are surrounded by coal mines in this area. The ground water standards must be as strong as possible to prevent pollution of our wells, permanently.

Strengthen the DNR's proposal to make it comply with the law which forbids contamination of ground water outside the permit boundary.

Jeffrey Stant of the Clean Air Task Force provided written comments during the public hearing on September 30:

The Clean Air Task Force is a national, nonprofit organization that assists state and local organizations to address pollution problems including problems created from the use of coal. We wish to make the following points in testimony before the Natural Resources Commission at this hearing. Provided resource constraints allow, we intend to follow up with more substantive written comments.

- 1) The rule amendments' reliance in subsections 312 IAC 25-4-43(4), 25-4-47(b)(9), 25-4-85(b)(8), 25-4-93(4) on monitoring as delineated by the ground water management zones in Sections 25-6-12.5 and 25-6-76.5 fail to require monitoring of pollution caused by activities in a mine that do not result from mining itself, e.g., the disposal of coal combustion wastes or other nonmine wastes. This will violate the explicit intent in Section 4 of the Indiana Groundwater Standards rule, 327 IAC 2-11, and the backbone

Agenda Item #16

- requirement in state and federal mining law to minimize and where possible prevent pollution.
- 2) The rule amendments afford no protection against contamination of wells that are not drinking water wells.
 - 3) By allowing groundwater management zones in Sections 25-6-12.5 and 25-6-76.5 to extend directly up to drinking water wells, the rule amendments afford inadequate protection for drinking water wells that will violate the requirement to avoid any degradation in the water supplied by those wells in 327 IAC 2-11. The amendments should require ground water management zone boundaries and monitoring therefore to be far enough away from any well to prevent that degradation.
 - 4) If the coal extraction area is to be defined by these rules as the groundwater management zone, the rule amendments should provide a notice requirements to landowners who are approached to lease land to be mined on which wells are located. This notice should clearly state that the mine operator will not be held accountable to returning their property in a condition that will provide groundwater that is legally safe to drink or otherwise use.
 - 5) The rule amendments should set numeric standards within mines. By allowing the groundwater standard that IDNR will follow to be whatever the concentration of pollution is caused by mining, these amendments fail to comply with the requirement in state and federal mining law to minimize degradation of groundwater in the mines and prevent material damage to the hydrologic balance within and adjacent to mine areas. Coal mining regulations are supposed to prevent damage rather than rely solely on reactive measures to respond to damage.
 - 6) The rule amendments must explicitly limit the boundaries of groundwater management zones to areas within the permit boundaries of mines. No mining operation has the right to damage another person's property.
 - 7) The rule amendments should have explicit language that ties bond release to long-term monitoring which clearly demonstrates compliance with these amendments, 327 IAC 2-11 and state and federal mining law.

Thank you for the opportunity to comment.

During the public hearing, Stant highlighted several points from his written statement. He said that pollution caused by mining becomes the standard, but this approach should not waive protections against pollution from other sources (such as the disposal of coal combustion waste). He urged that agricultural and industrial wells be covered by the rules. He said the philosophy of the Water Pollution Control Board was that pollution levels in drinking water wells should not be allowed to rise. Yet he expressed fears there was no legal obligation under the proposed rules to control pollutants until they caused pollution. Stant urged the development of notice requirements to property owners, who lease lands to coal companies, that their lands might not produce potable water after the completion of mining and reclamation. He said numeric standards should be established

Agenda Item #16

for groundwater within mines, similar to the approach used by Illinois. Stant said the rules must limit the boundaries of groundwater management zones to areas within the permit boundaries of the mines. Finally, he urged bond release be tied to long-term monitoring.

Dixie Wagner of northern Vanderburgh County spoke briefly during the public hearing. She expressed concerns the proposed rule amendments would be inadequate to address non-drinking water-supply wells and that the permissible geographic extent of a Groundwater Management Zone was excessive. She promised to supplement her oral comments with a more formal written statement. That statement was included in a letter received October 22, 2002:

Groundwater is clearly Indiana's most precious and threatened resource. Conservative estimates show that nearly two thirds of all Hoosiers depend on groundwater as their drinking water source. Data gathered at Purdue has shown that at least 500,000 homes, 425 public water systems, 350 mobile home parks, and 25000 non-community water supplies are dependent upon groundwater. Rural residential use of groundwater has been projected to increase by 44%. Additionally, groundwater is important to Indiana's economic growth and absolutely vital to the agricultural community.

As assaults on Indiana's groundwater continue daily, effective and adequate steps must be taken to prevent further costly and often irreversible groundwater contamination. The proposed rule amendments are inadequate in regard to this need.

I oppose implementation of a Groundwater Management Zone as outlined in the present language of the rule. The intent of a management zone is to prevent further degradation of groundwater and to protect adjacent areas from contamination. The stated goal of 327 IAC 2-11-1 is to maintain and protect the quality of Indiana's groundwater. The stated goal of 327 IAC 2-11-1 is to protect the quality of Indiana's groundwater. Also, 327 IAC 2-11-2 mandates the regulatory authority to ensure that Criteria in Sections 5, 6, 7 and 8 of 327 IAC are met. The establishment of a Groundwater Management Zone as outlined in this rule would allow damage to occur on another person's property in violation of 327 IAC and SMCRA. Drinking water wells within 300 feet of mining facilities and activities would clearly not be protected against further degradation. In determining the boundary of the Groundwater Management Zone, the amendments must not allow for the zone to extend beyond the permit boundary.

The rule also fails to provide necessary language to protect non-drinking water supply wells. A clear definition of these wells and provisions for their protection against degradation and contamination should be included in the language of the amendments. Without these provisions, owners of these wells, such as farmers,

Agenda Item #16

would be denied adequate protection for their groundwater resources and property.

The proposed amendments also fail to set provisions to minimize groundwater contamination within the mine itself. SMCRA and IDEM Groundwater Standards mandate minimizing pollution within the mine boundary and prevention of pollution beyond that boundary. Language to set adequate, definable, numeric standards within the mine area must be made a part of these rule amendments.

Thank you for the opportunity to comment. I strongly urge you to make the necessary changes to this rule to ensure protection of property owner's rights and our already jeopardized groundwater resources.

David Woodsmall of Shelburn spoke during the public hearing in Jasonville. He reflected that a letter from the Hoosier Environmental Council stated, that under the proposed rule, a Groundwater Management Zone could cross property lines. He wanted the rule clarified on this point so that a zone could not include land without the owner's consent. He noted that the structure of SMCRA was that adverse impacts by surface coal mining are to be minimized. "I support HEC's take" on limitations to geographic boundaries of the Groundwater Management Zone.

Woodsmall continued, "We all have the right to clean water. Clean water is our most valuable resource, and it's in jeopardy all over the country and all over the world." He added, "I really have some deep fears about the damage that can be done..., and I don't think any amount of coal is worth damaging the drinking water." There are fish consumption advisories based on agriculture and mercury discharges from burning coal. "My final comment is something as valuable and sacred as water, it's far better to err on the side of caution."

Brian Wright of the Hoosier Environmental Council spoke during the public hearing in Jasonville. He expressed several concerns regarding the proposed rules.

- Wright said the rules made no mention of wells other than drinking water wells. He urged that protection be considered for agricultural wells and industrial wells.
- Wright said SMCRA is intended to minimize damage outside the mine. He said the proposed rules were inadequate in this regard in two ways. First, they did not assure that a Groundwater Management Zone would not extend outside the permit boundary. Second, they did not assure that a Groundwater Management Zone would not extend across property lines where the mining company has no right of access. He urged that

Agenda Item #16

the rules be amended to make clear a zone cannot extend beyond either the permit boundary or a property line (unless a right of access is obtained).

- Wright reflected there were no water quality standards within the mined areas. He contrasted the Indiana proposal with the Illinois regulatory structure where there are water quality standards within mines, although he acknowledged the Illinois standards within mines were less stringent than those generally applicable.
- Wright said currently a mining operation may extend “right up to a well”. He urged that a zone of protection be established around any drinking water well so problems are identified before a well is contaminated. “The resources need to be protected and damages prevented.” He observed that remediation is very expensive, and a much greater effort is needed to correct pollution than to prevent it.

Brian Wright, Coal Policy Associate of the Hoosier Environmental Council, and John Blair, Director of Valley Watch, wrote a joint letter dated October 25, 2002:

The Hoosier Environmental Council (HEC) appreciates the Department of Natural Resources’ (DNR) quick response in putting these rules together following final adoption of the Indiana Ground Water Quality Standards. However several omissions in the rule language are of concern to HEC.

The rules make no mention of wells used for purposes other than human consumption. The Indiana Ground Water Quality Standards state “No person shall cause the ground water in a non-drinking water supply well, including an industrial, commercial, or agricultural supply well, to have a contaminant concentration that, based on best scientific information, renders the well unusable for its current use.” 327 IAC 2-11-2 Sec. 1(f). Despite this requirement, a definition is only provided for drinking water wells, and no mention is made in the rules about protection of non-drinking water supply wells.

A definition for non-drinking water supply wells should be included in these rules. DNR should also insert language requiring the protection of the use of these wells. While not used for human consumption, these wells are an important resource to their owners including farmers who often rely on ground water for irrigation and livestock. Farmers would be especially hard hit by the cost of replacing these wells with municipal water or other water supplies.

Ground water standards are not applied at the property or permit boundary. The federal Surface Mining Control and Reclamation Act (SMCRA) clearly requires that mines “prevent material damage to the hydrologic balance outside the permit area”. 30 CFR Sec. 816.41(a). Furthermore, no industry has the right to damage another person’s property. The proposed rules set the ground water management zone 300 ft. away from the coal mining area and associated facilities. No mention is made of applying the standards at the property boundary in order to prevent damage outside the property boundary as required by federal law.

Agenda Item #16

Under the proposed rules, drinking water wells within 300 ft. of the mining or related facilities literally receive no room for protection. For those wells, the standards apply directly at the drinking water well. This allows mining companies to contaminate ground water right up to the drinking water. Under this scenario, there is no possible way that these wells can be protected from contamination caused by the mining company. This language also completely ignores the well owners right as a property owner.

Ground water standards must be applied at the mine property boundary in order to prevent material damage outside the permit area, and to prevent contamination of nearby drinking water wells. To all the ground water management zone to extend beyond the property boundary is in clear violation of state and federal mining law and the rights of adjacent property owners.

The rule sets no provisions for minimizing ground water contamination within the mine itself. Indiana's Surface Mining Control and Reclamation Act (I-SMCRA), Ind. Code § 14-34 et seq., requires mine operators to "Minimize disturbances to the prevailing hydrologic balance at the mine site and associated offsite areas and to the quality and quantity of water in surface and ground water systems during and after surface coal mining and reclamation operations." (IC 14-34-10-2(13)) Under the proposed rule, no standards will apply within the ground water management zone. Under the IDEM ground water standards, the standard for these areas becomes the amount of pollution caused by mining upon bond release. Thus, these rules do not enforce the requirement to minimize pollution of mine waters within the mined properties.

The provisions of federal and state mining law in concerns to ground water contamination will be enforced by the standards set by this proposed rule. Under its current language, it does not comply with the requirements of SMCRA and I-SMCRA of minimizing pollution within the mine boundaries and preventing pollution outside of the permit boundary.

The Illinois ground water rule sets numeric standards within mines that are higher than those allowed for other aquifers for pollution typically caused by mining activity, but still holds the mine accountable to a set standard. We ask that Indiana follow Illinois' lead and set definable standards by which mines must minimize damage to ground water quality within the mine itself.

Therefore, we ask that you please make the following changes to the proposed rule:

- Establish requirements for protecting non-drinking water supply wells.
- Apply the Indiana ground water standards at the permit boundary if the boundary is less than 300 ft. from the coal extraction area or related facilities.
- Provide better protection for drinking water wells located within 300 ft. of the coal mining operations.
- Set numeric standards within the mine area itself to comply with the requirement to minimize pollution to ground water. We propose the standards be ten times the numeric standards set by IDEM for sulfates, TDS, and iron with no change in requirements for the other standards.

Agenda Item #16

2. RESPONSES BY THE DIVISION OF RECLAMATION

In an email received on April 11, 2003, the Division of Reclamation of the Department of Natural Resources provided the following responses to public comments⁴:

A. COMMENT: In written comments dated November 1, 2002, received from the Indiana Coal Council, they stated it was their understanding that the rules "...will not be applied retroactively to mines at which mining was completed prior to the effective date of the rule."

A. RESPONSE: The proposed rule amendments will apply to surface and underground coal mining and reclamation permits issued under IC 14-34 on which coal extraction including augering, coal processing, coal processing waste disposal, or underground development waste and spoil deposition occurs after the effective date of this rule, or on which disposal activity subject to IC 13-19-3-3 has occurred and the area is not fully released from the performance bond required by IC 14-34-6. As a result of this written comment, the application sections of the ground water quality standards found in sections 312 IAC 25-6-12.5 and 25-6-76.5 have been revised to clearly state this intent.

B. COMMENT: Written comments received from the Kentucky Resources Council in an email sent on November 1, 2002, written comments provided by the Clean Air Task Force during the public hearing on September 30, 2002, in a letter received from Dixie Wagner on October 22, 2002, and from the Hoosier Environmental Council in a joint letter with Valley Watch dated October 25, 2002, suggested the rule amendments afford no protection for non-drinking water wells and the proposed rules should be revised to include a definition for "non-drinking water supply wells."

B. RESPONSE: As required by IC 13-18-17-5, an agency with jurisdiction over an activity must promulgate a rule to implement the groundwater quality standards adopted by the Water Pollution Control Board at 327 IAC 2-11. Since no definition for "non-drinking water wells" is contained in 327 IAC 2-11, the department believes the Water Pollution Control Board did not deem it necessary to include one in the final version of the rules. Therefore, a definition for "non-drinking water supply well" has not been added to the proposed SMCRA rule amendments. Regardless, the protection of non-drinking water supply wells is already an important provision of the current mining regulations. As a result of these written comments and in order to clarify the department's position on this issue in these rule amendments, new subsections have been added at 312 IAC 25-6-12.5(c) and 312 IAC 25-6-76.5(c) that pertain to the prevention of impacts to both drinking water and non-drinking water wells. In addition to new subsections 312 IAC 25-6-12.5(c) and 312 IAC 25-6-76.5(c), the rules have also been modified to include new subdivisions 312 IAC 25-6-12.5(c)(1) and 312 IAC 25-6-76.5(c)(1) that indicate in the event drinking water wells or non drinking water wells are affected by mining activities, water replacement will occur as described in existing rules 312 IAC 25-4-33 and 25-6-25 for surface mining and 312 IAC 25-4-74 and 25-6-88 for underground mining.

⁴ The hearing officer has lettered the comments and responses to facilitate subsequent reference and discussion.

Agenda Item #16

C. COMMENT: In written comments dated November 1, 2002, the Indiana Coal Council suggested that the proposed definition for “drinking water well” found at 312 IAC 25-1-45.5 be revised to include the additional requirement that the well “Was located and installed in accordance with 312 IAC 13.”

C. RESPONSE: The current definition for “drinking water well” included in the proposed rule amendments mirrors the definition included in the rule adopted by the Water Pollution Control Board and found at 327 IAC 2-11-3(5). Since it is the intent of the department to have rule amendments that incorporate the rules found at 327 IAC 2-11, and to provide protection for all drinking water wells, the department believes no change to the definition is warranted.

D. COMMENT: In written comments dated November 1, 2002, the Indiana Coal Council stated it was their understanding that the “The GMZs to be established under proposed 312 IAC 25-6-12.5 and 25-6-76.5 will not apply at drinking water wells located within the area otherwise delineated in the GMZ.”

D. RESPONSE: The rule language for the ground water management zone is now located at subsections identified as 312 IAC 12-6-12.5(d) and 312 IAC 25-6-76.5(d).

The department believes the rule language contained in subsections 312 IAC 25-6-12.5(d) and 25-6-76.5(d) does not require revision in response to this comment provided by the Indiana Coal Council; however, the department does believe that additional clarification is necessary to reinforce the requirement that ground water management zones established under these rules do apply at drinking water wells located within the area delineated in the ground water management zone.

For any water well that is located at or within the boundary of the ground water management zone established by 312 IAC 25-6-12.5(d) or 25-6-76.5(d) that is owned or leased by the permittee and clearly falls under the definition of property boundary (as added by new subsection 312 IAC 25-1-109.5 in response to written comments received in regard to the boundary of the ground water management zone), and does not meet the definition for a drinking water well found in 312 IAC 25-1-45.5, the standards will not apply. For any drinking water well that is located at or within the boundary of the ground water management zone that is not owned or leased by the permittee and does not meet the requirements of property boundary as defined by 312 IAC 25-1-109.5, the standards will apply.

The department believes these sections are adequate to clearly indicate that the location of drinking water wells that are in proximity to one of the activities identified in 312 IAC 25-6-12.5(d)(1) and 25-6-76.5(d)(1) is a determining factor for the establishment of the boundary for the ground water management zone.

E. COMMENT: Written comments received from the Kentucky Resources Council in an email sent on November 1, 2002, written comments provided by the Clean Air Task Force during the public hearing on September 30, 2002, in a joint letter from the Hoosier Environmental Council and Valley Watch dated October 25, 2002, in a letter received from Dixie Wagner on October 22, 2002, in a letter from Jeanne Melchior dated September 16, 2002, and in a letter from Lois Byrd dated October 25, 2002, all indicated that the ground water standards should be applied at the permit boundary, or mine property boundary. Marietta Smith, who wrote on October 4, 2002, said the proposal should be strengthened “to make it comply with the law which forbids contamination of ground water outside the permit boundary.”

Agenda Item #16

E. RESPONSE: In order for clarification and as a result of these comments, subsections 312 IAC 25-6-12.5(d) and 76.5(d) are revised to replace 312 IAC 25-6-12.5© and 76.5© and now include additional language for subdivision (2) and new subdivision (3). As these revised subsections contain the term “property boundary,” the definition of “property boundary” has been added to the rule at 312 IAC 25-1-109.5. The new definition at 312 IAC 25-1-109.5 mirrors the definition of “property boundary” in the IDEM rule found at 327 IAC 2-11-3(11).

The location of the boundary of the ground water management zone is determined by a distance from an activity identified in subdivision 312 IAC 25-6-12.5(d)(1) and 25-6-76.5(d)(1) and the proximity of those activities to drinking water wells. As a result of these and other written comments that pertain to ground water management zones, drinking water wells, and protection zones discussed elsewhere, revisions have been made to 312 IAC 25-6-12.5(d)(2) and 25-6-76.5(d)(2), and new language has been added at 312 IAC 25-6-12.5(d)(3) and 25-6-76.5(d)(3) to describe additional requirements for monitoring well installations. The rules also require a description of the actions that will be taken in the event a standard is exceeded in the monitoring wells and measures to be taken by the permittee to demonstrate compliance with the applicable standards at the boundary of the ground water management zone.

F. COMMENT: Written comments received from the Kentucky Resources Council in an email sent on November 1, 2002 state that the “Allowance of a three-hundred (300) foot management zone in which the numerical standards will not be applied violates both the 1977 Surface Mining Control and Reclamation Act, and constitutes an impermissible taking of property ...”

F. RESPONSE: The rules and interpretations were developed within the context of existing state and federal mandates concerning coal mining. The existing program requires compliance with state water quality standards (IC 14-34-10-2(13), 312 IAC 25-6-12(c) and 25-6-76(c)). Coal mine operations are required to minimize disturbances to the prevailing hydrologic balance on the mine site and associated off site areas (IC 14-34-10-2(13)). Further, surface and underground coal mining activities must be planned and conducted to minimize changes to the prevailing hydrologic balance in the permit area and adjacent areas, to prevent material damage to the hydrologic balance outside the permit area, in order to prevent long term adverse changes in that balance which could result from those activities (312 IAC 25-6-12(a) and 25-6-76(a)). It is clear that this language recognizes the possibility of impacts beyond the permitted area. It is also clear that any such impacts, should they occur, must be minimized and must not materially damage the hydrologic balance outside the permit boundaries.

The surface mining laws and regulations recognize the potential for impacts to occur beyond the permit area or to uncontrolled properties within the permit area. Existing surface mining law and regulation require replacement of any water supply when used for any legitimate purpose is diminished, contaminated, or interrupted by mining activities. The rules do not grant anyone a right to cause impacts to adjacent or uncontrolled properties. Rather, the law and regulations recognize that a permittee may follow their approved plan, comply with all legal mandates, conduct operations in accordance with best management practices, and yet still impact ground water off-site. Wide-scale off-site impacts in Indiana are very uncommon, and the rules are not being developed to correct a problem. The rules simply require that a specific standard be met at a specific distance or location.

Although impacts to water wells off the permitted area do occasionally occur, existing regulations at 312 IAC 25-4-33, 25-4-78, 25-6-25, and 25-6-88 adequately address these problems. When an impact does occur an alternate source of water is provided by the permittee. Moreover, the rules

Agenda Item #16

do not in any manner impart a permittee with any additional rights to intentionally or unintentionally cause impacts to adjacent areas and uncontrolled properties. The rights of property owners to take action against a permittee as a result of an impact to their property, beyond requirements imposed by these rules, remain unaffected.

G. COMMENT: Written comments provided by the Clean Air Task Force during the public hearing on September 30, 2002, in a joint letter from the Hoosier Environmental Council and Valley Watch dated October 25, 2002, in a letter from Jeanne Melchior dated September 16, 2002, and in a letter from Lois Byrd dated October 25, 2002, pertained to the ground water management zone and included the following comments: ground water management zones extending up to drinking water wells will afford inadequate protection for drinking water wells that will violate requirement to avoid any degradation in the water supplied by those wells in 327 IAC 2-11; ground water management zones and monitoring should be far enough away from a well to prevent the degradation; protection zones should be established around drinking water wells; and the ground water management zone should not be allowed to extend any closer than 100 feet of a well.

G. RESPONSE: All wells, regardless if they are used for drinking, agricultural, industrial, or commercial purposes, are protected by existing surface and underground mining rules in 312 IAC 25. In the event that mining or reclamation activities diminish the quality or the quantity of the water in any well that is used for one of the afore-mentioned purposes, the mining law and rules require that water source to be replaced or an alternate source provided.

The Water Pollution Control Board adopted the use of drinking water wells to establish the boundary of the ground water management zone in their rulemaking. No set back criteria were included in those rules.

Regardless, as a result of these comments and for early detection purposes, in the event that an activity described in subsection 312 IAC 25-6-12.5(d)(1) or 25-6-76.5(d)(1) takes place at which a drinking water well is located such that it is a compliance point as determined in section 312 IAC 25-6-12.5 or 25-6-76.5, the department will make a determination as to the potential for impact at the well and may require that a monitoring well be placed between the activity and the drinking water well or wells for early detection.

H. COMMENT: In written comments provided by the Clean Air Task Force during the public hearing on September 30, 2002, in a joint letter from the Hoosier Environmental Council and Valley Watch dated October 25, 2002, in a letter from Jeanne Melchior dated September 16, 2002, in a letter from Lois Byrd dated October 25, 2002, and in written comments received from the Kentucky Resources Council in an email sent on November 1, 2002, indicate the rules fail to set provisions to minimize ground water contamination within the mine itself.

H. RESPONSE: The department believes the changes made to the proposed rule amendments at 312 IAC 25-6-12.5(d) and 25-6-76.5(d) that establish the boundary of the ground water management zone in conjunction with other rules and statutory requirements to minimize the impacts due to mining, adequately address the minimization comments.

The Water Pollution Control Board in their rulemaking that established the ground water quality standards at 327 IAC 2-11 included classification criteria for ground water, numeric standards and narrative criteria that must be met, and a ground water management zone (the boundary at which the criteria must be met). 327 IAC 2-11 establishes the criteria for ground water at coal mine areas that have satisfied the requirements of IC 14-34 and are fully released from the

Agenda Item #16

performance bond required by IC 14-34-6 as limited class. Mineralization of ground water within the mined area is an unavoidable outcome of the mining process and ground water within this area does not lend itself to be a potable source of water. So long as the mining regulations and permit conditions are adhered to, the post mine water quality within the mined area is the result of the chemistry of the rock disturbed as part of the mining process, not the result of the performance of the mine operator. To require that a standard be met on water that is going to be mineralized within the mined area without the ability to predict the extent at which mineralization will take place is not practical or realistic, therefore no change to the rule amendments has been made. The IDEM recognizes this fact and have established standards and ground water classification accordingly. This proposed rule does not add additional standards to those found in 327 IAC 2-11 for mined areas.

I.COMMENT: In written comments provided by the Clean Air Task Force during the public hearing on September 30, 2002, they state the "...reliance in subsections 312 IAC 25-4-43(4), 25-4-47(b)(9), 25-4-85(b)(8), 25-4-93(4), and on monitoring as delineated by the ground water management zones in Sections 25-6-12.5 and 25-6-76.5 fail to require monitoring of pollution caused by activities in a mine that do not result from mining itself, e.g., the disposal of coal combustion wastes or other nonmine wastes."

I.RESPONSE: The program amendments included in this rulemaking package pertain to the classification of the ground water by IDEM, application of the ground water standards, the ground water quality standards that must be met, the ground water management zone, and the locations at which the criteria established by this rule and by 327 IAC 2-11 must be met. The proposed rule amendments will apply to surface and underground coal mining and reclamation permits issued under IC 14-34 on which coal extraction including augering, coal processing, coal processing waste disposal, or underground development waste and spoil deposition occurs after the effective date of this rule, or on which disposal activity subject to IC 13-19-3-3 has occurred and the area is not fully released from the performance bond required by IC 14-34-6. As previously stated, as a result of comments received from the Indiana Coal Council and now the Clean Air Task Force on this subject, the applicability sections of the rule at 312 IAC 25-6-12.5 and 25-6-76.5 have been revised to specify this.

Because the disposal of coal combustion waste at facilities regulated by IC 14-34 occurs only within the mined areas, the ground water management zone established for the mine will encompass the area in which disposal has occurred; therefore, the monitoring for the parameters associated with the mining activities and with the disposal of coal combustion waste is required by other program rules and policy. Therefore, activities such as the disposal of coal combustion waste do fall under the auspices of this rule and the ground water standards set by the Indiana Department of Environmental Management.

As previously described in the responses to other comments, the rules have been revised at 312 IAC 25-6-12.5(d)(2) and 25-6-76.5(d)(2), and at 312 IAC 25-6-12.5(d)(3) and 25-6-76.5(d)(3) to include the installation of monitoring wells within the ground water management zone located within property or permit boundaries to afford early detection for the exceedances of an applicable standard, the installation of wells between mining activities and drinking water wells, and plans or measures that will be undertaken in the event a standard is exceeded.

J. COMMENT: In the written comments received from the Kentucky Resources Council in an email sent on November 1, 2002, they state, "...the state should not finalize the rule until it has first submitted for review to the federal Office of Surface Mining for review as a state program amendment in a manner consistent with 30 CFR 732.17(g) and 30 CFR 733.11."

Agenda Item #16

J. RESPONSE: The proposed rules are a “state program amendment” and will not take effect until the Department of Natural Resources receives notice of approval from the Office of Surface Mining Reclamation and Enforcement and notice of that approval is published in the Indiana Register.

K. COMMENT: In written comments dated November 1, 2002, the Indiana Coal Council indicated the proposed rule language found at 312 IAC 25-4-47(b)(9) and 25-4-85(b)(8) to require permit applications to include “...a plan to demonstrate compliance with the respective new ground water quality protection performance standards for surface and underground coal mines” was not intended to require computer modeling of anticipated ground water quality impacts.

K. RESPONSE: It is not the intent of the department to require computer modeling to demonstrate compliance with the application of the ground water quality standards, rather a plan that details what measures will be followed in order to comply will be required as part of the application process. The components of the plan can include a narrative description of the measures that will be taken to meet the appropriate standards and include such things as the results of any ground water quality reclassification requests approved by the Indiana Department of Environmental Management, the numeric criteria that will be met at the boundary of the ground water management zone, and the location of the ground water management zone. Moreover, the applicant must submit a statement of probable hydrologic consequences for review prior to generation of the cumulative hydrologic impact assessment by the department. In the event that the director determines that conditions are such that computer modeling is necessary, it can be required.

L. COMMENT: In written comments provided by the Clean Air Task Force during the public hearing on September 30, 2002, they state “...the rule amendments should provide a notice requirements (*sic*) to landowners who are approached to lease land to be mined on which wells are located.” Also, they state, “The rule amendments should have explicit language that ties bond release to long-term monitoring with these amendments, 327 IAC 2-11 and state and federal mining law.”

L. RESPONSE: All major permitting actions require public notice. The plans are made available for public review. The submission process for comments and concerns from interested parties is provided by law. Any inadequacies in the plan noted by staff or other parties during comment and review are addressed before a permit decision is reached.

Performance bond release requirements are already in place that require the department to perform an inspection and evaluation prior to the release of bond. The evaluation considers among other things the degree of difficulty to complete any remaining reclamation, whether pollution of surface and subsurface water is occurring, the probability pollution will continue, and the estimated cost of abating the pollution. These rules can be found at 312 IAC 25-5. Once the department no longer has jurisdiction over a site, the IDEM water quality standards will apply. The department believes the issue as to whether bond release should be tied to long term monitoring is beyond the scope of this rulemaking.

Agenda Item #16

3. PRESENTATION FOR FINAL ADOPTION

Rule adoption is a process by which a state agency makes policy within parameters established by the Indiana General Assembly. In this context, the function of the agency is quasi-legislative. Where the Natural Resources Commission adopts rules for the Department of Natural Resources, the Commission is making policy by the selection of procedural and substantive standards, that when effective, have the force and effect of law.

The current rule proposal is of vital concern to Indiana citizens and businesses. The subject matter has broad implications, and the policy choices are particularly challenging. Public comments were thoughtful and insightful, and they help illuminate important public needs and concerns.

The Department's Division of Reclamation has made a very serious effort to respond to the public comments, both through narratives and by offering modifications or clarifications to the proposed rule. The narratives were set forth previously, and the proposals for amended language are set forth in Exhibit A that follows. Type in **bold** represents new language given preliminary adoption, and type ~~stricken~~ represents language given preliminary adoption for deletion. The Division of Reclamation proposed new language that is **underscored bold** as a result of public comments. In addition, the Division of Reclamation developed a proposed nonrule policy document to provide background to the rule amendments, a kind of "legislative history". The nonrule policy document follows as Exhibit B.

The public comments and the agency responses are thorough and articulate. They present a solid basis for Commission consideration of important policy choices. The role of the hearing officer is not to make policy, and opinions as to policy choices are not offered to the current rule proposal. In determining what substantive changes may appropriately be given final adoption, as compared to the language given preliminary adoption, IC 4-2-29(b) applies:

Agenda Item #16

(b) An agency may not [final] adopt a rule that substantially differs from the version...published in the Indiana Register...unless it is a logical outgrowth of any proposed rule as supported by written comments submitted during the comment period.

The proposed rule amendments as set forth in Exhibit A, and the proposed nonrule policy document as set forth in Exhibit B, are presented for consideration as to final action by the Natural Resources Commission.

Dated: April 28, 2003

Stephen L. Lucas, Hearing Officer
Natural Resources Commission

EXHIBIT A

TITLE 312 NATURAL RESOURCES COMMISSION

LSA Document #02-104(F)

DIGEST

Amends 312 IAC 12-1 by adding new definitions. Amends 312 IAC 25-4-43, 312 IAC 25-4-47, 312 IAC 25-4-85, and 312 IAC 25-4-93 with respect to performance standards for the protection of ground water quality. Adds 312 IAC 25-6-12.5 and 312 IAC 25-6-76.5 to establish application procedures and performance standards consistent with 327 IAC 2-11 as regulated under IC 14-34. Effective upon the Department of Natural Resources receiving notice of approval from the Office of Surface Mining and Reclamation of the U.S. Department of the Interior and notice of that approval being published in the Indiana Register.

312 IAC 25-1-45.5
312 IAC 25-1-60.5
312 IAC 25-1-109.5
312 IAC 25-4-43
312 IAC 25-4-47
312 IAC 25-4-85
312 IAC 25-4-93
312 IAC 25-6-12.5
312 IAC 25-6-76.5

SECTION 1. 312 IAC 25-1-45.5 IS ADDED TO READ AS FOLLOWS:

312 IAC 25-1-45.5 “Drinking water well” defined

Authority: IC 14-34-2-1

Affected: IC 14-34

Sec. 45.5. “Drinking water well”, for the purposes of 312 IAC 25-6-12.5 and 312 IAC 25-6-76.5, means a bored, drilled, or driven shaft or a dug hole that meets each of the following:

- (1) Supplies ground water for human consumption.**
- (2) Has a depth greater than its largest surface dimension.**
- (3) Is not permanently abandoned under 312 IAC 13-10-2.**

(Natural Resources Commission; 312 IAC 25-1-45.5)

SECTION 2. 312 IAC 25-1-60.5 IS ADDED TO READ AS FOLLOWS:

312 IAC 25-1-60.5 “Ground water management zone” defined

Authority: IC 14-34-2-1

Affected: IC 14-34

Sec. 60.5. “Ground water management zone” means a three (3) dimensional region of ground water around a potential or existing contaminant source where a contaminant is or was managed to prevent or mitigate deterioration of ground water quality such that the criteria established in 312 IAC 25-6-12.5(a) or 312 IAC 25-6-76.5(a) are met at and beyond the boundary of the region. *(Natural Resources Commission; 312 IAC 25-1-60.5)*

SECTION 3. 312 IAC 25-1-109.5 IS ADDED TO READ AS FOLLOWS

Agenda Item #16

312 IAC 25-1-109.5 “Property boundary” defined

Authority: IC 14-34-2-1

Affected: IC 14-34

Sec. 109.5. “Property Boundary”, for the purposes of 312 IAC 25-6-12.5 and 312 IAC 25-6-76.5, means the edge of a contiguous parcel of land owned by or leased to the permittee. Contiguous land shall include land separated by a public right-of-way, if that land would otherwise be contiguous.

SECTION 4. 312 IAC 25-4-43, AS ADDED AT 24 IR 3454, SECTION 1, IS AMENDED TO READ AS FOLLOWS:

312 IAC 25-4-43 Surface mining permit applications; reclamation and operations plan; maps

Authority: IC 14-34-2-1

Affected: IC 14-34

Sec. 43. Each application shall contain maps and plans of the proposed permit and adjacent areas as follows:

(1) The maps and plans shall depict the lands proposed to be affected throughout the operation and any change in a facility or feature to be caused by the proposed operations if the facility or feature was shown under sections 37 and 38 of this rule.

(2) The following shall be shown for the proposed permit area and adjacent area within one thousand (1,000) feet:

- (A) Buildings, utility corridors, and facilities to be used.
 - (B) The area of land to be affected within the proposed permit area according to the sequence of mining and reclamation.
 - (C) Each area of land for which a performance bond will be posted under 312 IAC 25-5.
 - (D) Each coal storage, cleaning, and loading area.
 - (E) Each topsoil, spoil, coal waste, and noncoal waste storage area.
 - (F) Each water diversion, collection, conveyance, treatment, storage, and discharge facility to be used.
 - (G) Each source of waste and each disposal facility relating to coal processing or pollution control.
 - (H) Each facility to be used to protect and enhance fish and wildlife and related environmental values.
 - (I) Each explosive storage and handling facility.
 - (J) Location of each:
 - (i) siltation structure;
 - (ii) permanent water impoundment;
 - (iii) coal processing waste bank; and
 - (iv) coal processing waste dam and embankment;
- in accordance with section 49 of this rule, and fill area for the disposal of excess spoil in accordance with section 54 of this rule.
- (K) Each air pollution collection and control facility if required.

(3) Maps, plans, and cross sections required under subdivision (2)(D) through (2)(F) and (2)(J) shall be prepared by, or under the direction of, and certified by a registered professional engineer or professional geologist, with necessary assistance from experts in related fields such as land surveying and landscape architecture, except that maps, plans, and cross sections for:

- (A) siltation structures may only be prepared by a registered professional engineer; and
- (B) spoil disposal facilities may only be prepared by a registered professional engineer.

(4) All monitoring locations used to demonstrate compliance with 312 IAC 25-6-12.5.

(Natural Resources Commission; 312 IAC 25-4-43; filed Jun 21, 2001, 2:53 p.m.; 24 IR 3454, eff Dec 1, 2001)

SECTION 5. 312 IAC 25-4-47, AS ADDED AT 24 IR 3456, SECTION 1, IS AMENDED TO READ AS FOLLOWS:

Agenda Item #16

312 IAC 25-4-47 Surface mining permit applications; reclamation and operations plan; reclamation plan; protection of hydrologic balance

Authority: IC 14-34-2-1

Affected: IC 14-34

Sec. 47. (a) Each reclamation plan shall contain a detailed description, including maps and drawings of the measures to be taken during the mining and reclamation process, through bond release, to assure the protection of the following:

- (1) The quality of surface and ground water systems, within the permit area and adjacent area, from adverse effects of the mining and reclamation process.
- (2) The rights of present users of that water.
- (3) The quantity of surface and ground water systems, within the permit area and adjacent area, from adverse effects of the mining and reclamation process or to provide alternative sources of water under section 33 of this rule and 312 IAC 25-6-25 where the protection of quantity cannot be assured.
- (4) The prevention of material damage outside the permit area.
- (5) Compliance with applicable federal and state water quality laws and regulations.
- (6) The hydrologic balance within the permit and adjacent areas.

(b) The description in subsection (a) shall include the following:

(1) A plan for the control of drainage under 312 IAC 25-6-5 through 312 IAC 25-6-69, of surface and ground water drainage into, through, and out of the proposed permit area.

(2) A plan for the treatment, where required under 312 IAC 25-6-5 through 312 IAC 25-6-69, of surface and ground water drainage from the area to be affected by the proposed activities and proposed quantitative limits on pollutants in discharges subject to 312 IAC 25-6-13, according to the more stringent of:

(A) 312 IAC 25-6-5 through 312 IAC 25-6-69; or

(B) other applicable state or federal laws.

(3) A plan for the restoration of the approximate recharge capacity of the permit area under 312 IAC 25-6-22 and as required by section 45 of this rule.

(4) A plan for the collection, recording, and reporting of ground and surface water quality and water quantity data under 312 IAC 25-6-23.

(5) A plan to avoid acid or toxic drainage.

(6) A plan to prevent, to the extent possible using the best technology currently available, additional contributions of suspended solids to stream flow.

(7) A plan to provide water treatment facilities when needed.

(8) A plan to control drainage.

(9) A plan to demonstrate compliance with 312 IAC 25-6-12.5.

(c) The description in subsection (a) shall include a determination of the probable hydrologic consequences (PHC) of the mining and reclamation operations proposed, in the permit and adjacent areas, with respect to the quantity and quality of surface and ground water systems under all seasonal conditions, including the contents of dissolved and total suspended solids, total iron, pH, total manganese, and other parameters required by the director. Information shall be provided as follows:

(1) The PHC determination shall be based on baseline hydrologic, geologic, and other information collected for the permit application and may include data statistically representative of the site.

(2) The PHC determination shall include findings on the following:

(A) Whether adverse impacts may occur to the hydrologic balance.

(B) Whether acid-forming or toxic-forming materials are present that could result in the contamination of surface or ground water supplies.

(C) Whether the proposed operation may proximately result in contamination, diminution or interruption of an underground or surface source of water within the proposed permit or adjacent areas that is used for domestic, agricultural, industrial, or other legitimate purpose.

(D) What impact the proposed operation will have on the following:

(i) Sediment yields from the disturbed area.

(ii) Acidity, total suspended and dissolved solids, and other important water quality parameters of local impact.

(iii) Flooding or stream flow alteration.

(iv) Ground water and surface water availability.

Agenda Item #16

(v) Other characteristics as required by the director.

(3) Sampling and analysis shall be conducted under section 28(d) of this rule.

(4) An application for a permit revision shall be reviewed by the director to determine whether a new or updated PHC determination shall be required.

(d) The description in subsection (a) shall include a plan specifically addressing any potentially adverse hydrologic consequences identified in the PHC determination prepared under subsection (c) and shall include preventative and remedial measures. (*Natural Resources Commission; 312 IAC 25-4-47; filed Jun 21, 2001, 2:53 p.m.: 24 IR 3456, eff Dec 1, 2001*)

SECTION 6. 312 IAC 25-4-85, AS ADDED AT 24 IR 3472, SECTION 1, IS AMENDED TO READ AS FOLLOWS:

312 IAC 25-4-85 Underground mining permit applications; reclamation plan; protection of hydrologic balance

Authority: IC 14-34-2-1

Affected: IC 14-34; 30 CFR 784.14

Sec. 85. (a) Each reclamation plan shall contain a detailed description, with appropriate maps and cross section drawings, of the measures to be taken during and after the proposed underground mining activities, through bond release, under 312 IAC 25-6-70 through 312 IAC 25-6-132, to ensure the protection of the following:

(1) The quality of surface and ground water in the proposed permit area and adjacent area from adverse effects of the proposed underground mining activities.

(2) The rights of present users to that surface and ground water.

(3) The quantity of surface and ground water in the proposed permit area and adjacent area from adverse effects of the proposed underground mining activities, or to provide alternative sources of water, under section 74 of this rule and 312 IAC 25-6-88, where the protection of quantity cannot be ensured.

(4) Water quality by locating openings for mines under 312 IAC 25-6-85.

(5) The prevention of material damage outside the permit area.

(6) Compliance with applicable federal and state water quality laws and regulations.

(7) The hydrologic balance within the permit and adjacent areas.

(b) The description in subsection (a) shall include the following:

(1) A plan for the control, under 312 IAC 25-6-70 through 312 IAC 25-6-132, of surface and ground water drainage into, through, and out of the proposed permit area.

(2) A plan for the treatment, where required under 312 IAC 25-6-70 through 312 IAC 25-6-132, of surface and ground water drainage from the area to be affected by the proposed activities, and proposed quantitative limits on pollutants in discharges subject to 312 IAC 25-6-77, according to the more stringent of the following:

(A) 312 IAC 25-6-70 through 312 IAC 25-6-132.

(B) Other applicable state and federal laws.

(3) A plan for the collection, recording, and reporting of ground and surface water quality and water quantity data under 312 IAC 25-6-86.

(4) A plan to avoid acid or toxic drainage.

(5) A plan to prevent, to the extent possible using the best technology currently available, adding contributions of suspended solids to stream flow.

(6) A plan to provide water treatment facilities when needed.

(7) A plan to control drainage.

(8) A plan to demonstrate compliance with 312 IAC 25-6-76.5.

(c) The description in subsection (a) shall include the following:

(1) A determination of the probable hydrologic consequences (PHC) of the proposed underground mining activities, on the proposed permit area and adjacent area, with respect to the hydrologic regime and the quantity and quality of water in surface and ground water systems under all seasonal conditions, including the following:

(A) The contents of dissolved and total suspended solids.

(B) Total iron.

(C) pH.

Agenda Item #16

(D) Total manganese.

(E) Other parameters required by the director.

(2) Whether the underground mining activities may result in contamination, diminution, or interruption of a well or spring in existence at the time the permit application is submitted and used for domestic, drinking, or residential purposes within the permit or adjacent areas.

(d) Sampling and analysis shall be conducted under 312 IAC 25-6-86. Information shall be provided as follows:

(1) The PHC determination shall be based on baseline hydrologic, geologic, and other information collected for the permit application and may include data statistically representative of the site.

(2) The PHC determination shall include findings on the following:

(A) Whether adverse impacts may occur to the hydrologic balance.

(B) Whether acid-forming or toxic-forming materials are present that could result in the contamination of surface or ground water supplies.

(C) What impact the proposed operation will have on the following:

(i) Sediment yields from the disturbed area.

(ii) Acidity, total suspended and dissolved solids, and other important water quality parameters of local impact.

(iii) Flooding or stream flow alteration.

(iv) Ground water and surface water availability.

(v) Other characteristics as required by the director.

(3) Any application for a permit revision shall be reviewed by the director to determine whether a new or updated PHC determination shall be required.

(e) Each plan shall contain a detailed description, with appropriate drawings, of permanent entry seals and down slope barriers, designed to ensure stability under anticipated hydraulic heads developed while promoting mine inundation after mine closure for the proposed permit area.

(f) The plan shall specifically address any potential adverse hydrologic consequences identified in the PHC determination prepared under subsection (c) and shall include preventive and remedial measures.

(Natural Resources Commission; 312 IAC 25-4-85; filed Jun 21, 2001, 2:53 p.m.; 24 IR 3472, eff Dec 1, 2001)

SECTION 7. 312 IAC 25-4-93, AS ADDED AT 24 IR 3476, SECTION 1, IS AMENDED TO READ AS FOLLOWS:

312 IAC 25-4-93 Underground mining permit applications; reclamation plan; maps

Authority: IC 14-34-2-1

Affected: IC 14-34

Sec. 93. Each application shall contain maps, plans, and cross sections of the proposed permit and adjacent areas as follows:

(1) The maps, plans, and cross sections shall show the underground mining activities to be conducted, the land to be affected throughout the operations, and any change in a facility or feature to be caused by the proposed operations if the facility or feature was shown under sections 78 and 79 of this rule.

(2) The following shall be shown for the proposed permit area:

(A) Buildings, utility corridors, and facilities to be used.

(B) The area of land to be affected within the proposed permit area according to the sequence of mining and reclamation.

(C) Each area of land for which a performance bond will be posted under 312 IAC 25-5.

(D) Each coal storage, cleaning, and loading area.

(E) Each topsoil, spoil, coal preparation waste, underground development waste, and noncoal waste storage area.

(F) Each water diversion, collection, conveyance, treatment, storage, and discharge facility to be used.

(G) Each source of waste and each waste disposal facility relating to coal processing or pollution control.

(H) Each facility to be used to protect and enhance fish and wildlife related environmental values.

Agenda Item #16

(I) Each explosive storage and handling facility.

(J) Location of each:

- (i) siltation structure;
- (ii) permanent water impoundment;
- (iii) coal processing waste bank; and
- (iv) coal processing waste dam and embankment;

in accordance with section 87 of this rule and disposal areas for underground development waste and excess spoil in accordance with section 90 of this rule.

(K) Each profile, at cross sections specified by the director, of the anticipated final surface configuration to be achieved for the affected areas.

(L) Location of each water and subsidence monitoring point.

(M) Location of each facility that will remain on the proposed permit area as a permanent feature after the completion of underground mining activities.

(3) Maps, plans, and cross sections required under subdivision (2)(D) through (2)(F) and 2(I) through (2)(K) shall be prepared by, or under the direction of, and certified by a professional engineer or professional geologist, with necessary assistance from experts in related fields such as land surveying and landscape architecture, except that maps, plans, and cross sections of:

(A) siltation structures may only be prepared by a registered engineer; and

(B) excess spoil and underground development waste facilities may only be prepared by a registered professional engineer.

(4) All monitoring locations used to demonstrate compliance with 312 IAC 25-6-76.5.

(Natural Resources Commission; 312 IAC 25-4-93; filed Jun 21, 2001, 2:53 p.m.; 24 IR 3476, eff Dec 1, 2001)

SECTION 8. 312 IAC 25-6-12.5 IS ADDED TO READ AS FOLLOWS:

312 IAC 25-6-12.5 Hydrologic balance; application of ground water quality standards at surface coal mining and reclamation permits issued under IC 14-34 on which coal extraction including augering, coal processing, coal processing waste disposal, or spoil deposition occurs after [effective date of rule], or on which disposal activity subject to IC 13-19-3-3 has occurred and the area is not fully released from the performance bond required by IC 14-34-6.

Authority: IC 14-34-2-1

Affected: IC 14-34

Sec. 12.5. (a) Ground water is classified under 327 IAC 2-11 to determine appropriate criteria that shall be applied to ground water.

(b) Surface coal mining and reclamation operations must be planned and conducted to prevent violations of ground water quality standards under 327 IAC 2-11.

(c) Surface coal mining and reclamation operations must be planned and conducted to prevent impacts to the ground water in a drinking water well or a non-drinking water supply well, including an industrial, commercial, or agricultural supply well, that result in a contaminant concentration that, based on best scientific information, renders the well unusable for its current use. If a drinking water well or a non-drinking water supply well is affected by contamination, diminution, or interruption proximately resulting from surface mining activities, 312 IAC 25-4-33 and 312 IAC 25-6-25 govern water replacement.

—(e) (d) The ground water management zone described in 327 IAC 2-11-9 must be established as follows:

(1) At each drinking water well that is within three hundred (300) feet from the edge of the following:

(A) ~~the~~ any coal extraction area;

(B) ~~the~~ any coal mine processing waste disposal sites if not within a coal extraction area;

(C) ~~the~~ any area where coal is extracted by auger mining methods;

(D) ~~the~~ any location at which coal is crushed, washed, screened, stored, and loaded at or near the mine site unless the location is within the coal extraction area; or

(E) ~~the~~ any spoil deposition area.

Agenda Item #16

(2) Within three hundred (300) feet from the edge of an area or site described in subdivision (1) where there is no drinking water well that is within three hundred (300) feet from the edge of an area or site described in subdivision (1). If the property boundary or permit boundary is located within three hundred (300) feet from the edge of an area or site described in subdivision (1), the director shall require that a monitoring well be placed at a location approved by the director between the property boundary or permit boundary and the edge of an area or site described in subdivision (1).

(A) If a standard listed in 327 IAC 2-11 is exceeded at a monitoring well described in subdivision (2) that the director determines was caused by an activity under subdivision (1), the permittee must submit to the director a plan describing, in detail, the steps to be taken to prevent material damage to the hydrologic balance beyond the permit boundary, and a timetable for implementation. This plan must be submitted within thirty (30) days of the discovery of an exceedance and include information relative to access, additional monitoring, and any measures to be taken to minimize changes to the prevailing hydrologic balance, and to prevent material damage to the hydrologic balance, beyond the permit boundary.

(3) If a drinking water well is located within three hundred (300) feet of an area or site described in subdivision (1) and it is determined that there is a substantial likelihood of impact, the director may require that a monitoring well be placed at a location approved by the director between the drinking water well and the edge of an area or site described in subdivision (1).

(A) If a standard listed in 327 IAC 2-11 is exceeded at a monitoring well described in subdivision (3) that the director determines was caused by an activity under subdivision (1), the permittee shall submit to the director a plan describing, in detail, the steps to be taken and a timetable for taking the action that takes into account site specific conditions to provide protection for the drinking water well. This plan must be submitted within thirty (30) days of the discovery of an exceedance and include information relative to access, additional monitoring, and any measures to be taken to minimize changes to the prevailing hydrologic balance, and to prevent material damage to the hydrologic balance, beyond the permit boundary.

—~~(d)~~ (e) The criteria established in subsection (a) must be met at and beyond the boundary of the ground water management zone.

(Natural Resources Commission; 312 IAC 25-6-12.5)

SECTION 9. 312 IAC 25-6-76.5 IS ADDED TO READ AS FOLLOWS:

312 IAC 25-6-76.5 Underground mining; hydrologic balance; application of ground water quality standards at underground coal mining and reclamation permits issued under IC 14-34 on which coal extraction, coal processing, coal processing waste disposal, or underground development waste and spoil deposition occurs after [effective date of rule], or on which disposal activity subject to IC 13-19-3-3 has occurred and the area is not fully released from the performance bond required by IC 14-34-6.

Authority: IC 14-34-2-1

Affected: IC 14-34

Sec. 76.5. (a) Ground water is classified under 327 IAC 2-11 to determine appropriate criteria that shall be applied to ground water.

(b) Underground coal mining and reclamation operations must be planned and conducted to prevent violations of ground water quality standards under 327 IAC 2-11.

(c) Underground coal mining and reclamation operations must be planned and conducted to prevent impacts to the ground water in a drinking water well or a non-drinking water supply well, including an industrial, commercial, or agricultural supply well, that result in a contaminant concentration that, based on best scientific information, renders the well unusable for its current use. If a drinking water well or a non-drinking water supply well is affected by contamination, diminution, or interruption proximately resulting from surface mining activities, 312 IAC 25-4-74 and 312 IAC 25-6-88 govern water replacement.

—~~(e)~~ (d) The ground water management zone described in 327 IAC 2-11-9 must be established as follows:

Agenda Item #16

(1) At each drinking water well that is within three hundred (300) feet from the edge of the following:

(A) ~~the~~ any coal mine processing waste disposal site;

(B) ~~the~~ any location at which coal is crushed, washed, screened, stored, and loaded at or near the mine site; or

(C) ~~the~~ any underground development waste and spoil deposition area.

(2) Within three hundred (300) feet from the edge of an area or site described in subdivision (1) where there is no drinking water well that is within three hundred (300) feet from the edge of an area or site described in subdivision (1). If the property boundary or permit boundary is located within three hundred (300) feet from the edge of an area or site described in subdivision (1), the director shall require that a monitoring well be placed at a location approved by the director between the property boundary or permit boundary and the edge of an area or site described in subdivision (1).

(A) If a standard listed in 327 IAC 2-11 is exceeded at a monitoring well described in subdivision (2) that the director determines was caused by an activity under subdivision (1), the permittee must submit to the director a plan describing, in detail, the steps to be taken to prevent material damage to the hydrologic balance beyond the permit boundary, and a timetable for implementation. This plan must be submitted within thirty (30) days of the discovery of an exceedance and include information relative to access, additional monitoring, and any measures to be taken to minimize changes to the prevailing hydrologic balance, and to prevent material damage to the hydrologic balance, beyond the permit boundary.

(3) If a drinking water well is located within three hundred (300) feet of an area or site described in subdivision (1) and it is determined that there is a substantial likelihood of impact, the director may require that a monitoring well be placed at a location approved by the director between the drinking water well and the edge of an area or site described in subdivision (1).

(A) If a standard listed in 327 IAC 2-11 is exceeded at a monitoring well described in subdivision (3) that the director determines was caused by an activity under subdivision (1), the permittee shall submit to the director a plan describing, in detail, the steps to be taken and a timetable for taking the action that takes into account site specific conditions to provide protection for the drinking water well. This plan must be submitted within thirty (30) days of the discovery of an exceedance and include information relative to access, additional monitoring, and any measures to be taken to minimize changes to the prevailing hydrologic balance, and to prevent material damage to the hydrologic balance, beyond the permit boundary.

~~(d)~~ (e) The criteria established in subsection (a) must be met at and beyond the boundary of the ground water management zone.

(Natural Resources Commission; 312 IAC 25-6-12.5)

SECTION 10. SECTIONS 1 THROUGH 9 OF THIS DOCUMENT TAKE EFFECT UPON THE DEPARTMENT OF NATURAL RESOURCES RECEIVING NOTICE OF APPROVAL FROM THE OFFICE OF SURFACE MINING AND RECLAMATION OF THE U.S. DEPARTMENT OF INTERIOR AND NOTICE OF THAT APPROVAL BEING PUBLISHED IN THE INDIANA REGISTER.

EXHIBIT B

NATURAL RESOURCES COMMISSION

Information Bulletin #38
July 1, 2003

SUBJECT: Implementation of the Indiana ground water standards at coal mines regulated under IC 14-34.

I. PURPOSE

The purpose of this nonrule policy is to provide support guidance and added explanation of rules adopted by the Natural Resources Commission for implementation by the Department of Natural Resources, Division of Reclamation. These rules were given final adoption by the Commission on May 20, 2003 as amendments to 312 IAC 25 and are more particularly described as Legislative Services Document #02-104(F). They help implement the Indiana ground water standards established through the rules adopted by the Water Pollution Control Board that became effective March 6, 2002.

As required by IC 13-18-17-5, an agency with jurisdiction over an activity must adopt rules to apply the ground water quality standards adopted by the Water Pollution Control Board. As described in 327 IAC 2-11-2(b), when adopting rules an agency shall "...ensure that facilities, practices, and activities are designed and managed to eliminate or minimize, to the extent feasible, potential adverse impacts to the existing ground water quality by applying preventative action levels, design standards, a monitoring framework, or other regulatory methods." The amendments to 312 IAC 25 were developed in this context.

The amendments to 312 IAC 25 assist in the implementation of IC 14-34 (the Indiana Surface Mining Control and Reclamation Act or "Indiana SMCRA") governing surface coal mining and reclamation activities. The rules contain criteria for ground water classification, monitoring, and compliance that apply at sites regulated under Indiana SMCRA. This information bulletin has been developed to provide information concerning procedures and issues regarding the implementation of the rule amendments.

The following sections include a discussion of the background for the rulemaking, a section that describes the mines and associated activities that are subject to the rules, ground water classification, standards to be met, the establishment of a ground water management zone (or "GMZ"), the location at which the standards must be met, requirements for additional monitoring wells to serve as early detection wells, and the plans or actions that must occur if a standard is exceeded.

II. REGULATORY FRAMEWORK

The rules and their interpretations were developed within the context of existing state and federal mandates concerning coal mining. The existing program requires

Agenda Item #16

compliance with state water quality standards (IC 14-34-10-2(13), 312 IAC 25-6-12(c) and 25-6-76(c)). Coal mine operations are required to minimize disturbances to the prevailing hydrologic balance on the mine site and associated off site areas (IC 14-34-10-2(13)). Further, surface and underground coal mining activities must be planned, conducted, and designed to minimize changes to the prevailing hydrologic balance in the permit area and adjacent areas, to prevent material damage to the hydrologic balance outside the permit area, in order to prevent long term adverse changes in that balance which could result from those activities (312 IAC 25-6-12(a) and 25-6-76(a)). It is clear that this language recognizes the possibility of impacts beyond the permitted area. It is also clear that any such impacts, should they occur, must be minimized and must not materially damage the hydrologic balance outside the permit boundaries.

Indiana SMCRA and rules developed under Indiana SMCRA recognize the potential for impacts to occur beyond the permit area or to uncontrolled properties within the permit area. Existing standards already require replacement of any water supply when used for any legitimate purpose is diminished, contaminated, or interrupted by mining activities. The rules do not grant anyone a right to cause impacts to adjacent or uncontrolled properties. Rather, Indiana SMCRA and rules developed under Indiana SMCRA recognize that a permittee may follow its approved plan, comply with all legal mandates, conduct operations in accordance with best management practices, and yet still have an impact on ground water off-site. Wide-scale off-site impacts in Indiana are very uncommon and, consequently, the rule amendments are not being developed to correct a problem. The rule amendments require that a specific standard be met at a specific distance or location.

Although impacts to water wells off the permitted area do occasionally occur, existing standards at 312 IAC 25-4-33, 25-4-78, 25-6-25, and 25-6-88 adequately address these problems. When an impact does occur, an alternate source of water is provided by the permittee. Moreover, the rule amendments in LSA Document #02-104(F) do not impart a permittee with any additional rights to intentionally or unintentionally cause impacts to adjacent areas and uncontrolled properties. The rights of property owners to take action against a permittee as a result of an impact to their property, beyond requirements imposed by these rule amendments, remain unaffected.

III. APPLICABILITY

The rule amendments apply to coal extraction areas where surface and underground coal mining and reclamation permits are issued under Indiana SMCRA. For the purposes of the rule amendments, coal extraction areas include augering, coal processing, coal processing waste disposal, spoil deposition, or underground development waste deposition that occurs after the effective date of the amendments or on which a disposal activity subject to IC 13-19-3-3 has occurred and the area is not fully released from the performance bond required by IC 14-34-6.

IV. GROUND WATER CLASSIFICATION

Ground water must be classified according to 327 IAC 2-11-4 to determine the appropriate narrative and numeric criteria and level of protection that applies to the ground water. The classification of the ground water at the boundary of the GMZ is

Agenda Item #16

drinking water class unless it has been classified as limited class ground water or impaired class drinking water by 327 IAC 2-11. It should be noted, the limited class ground water classified according to 327 IAC 2-11-4(d) must meet the requirements found at 327 IAC 2-11-7(b) which include only the constituent concentrations attributable to coal mining, not those associated with the disposal of coal combustion waste. See 327 IAC 2-11-5 through 327 IAC 2-11-8 for further information on the criteria for all ground water, drinking water class ground water, limited class ground water, and impaired drinking water class ground water.

Should a permittee wish to propose a reclassification of ground water, the IDEM Ground Water Section should be contacted to discuss the IDEM procedures, specific information requirements, and the criteria for limited class ground water and impaired drinking water class ground water.

V. STANDARDS

Surface and underground coal mining and reclamation operations must be planned and conducted to prevent violations of the ground water quality standards found in 327 IAC 2-11. Mining and reclamation operations are to be performed to minimize the effects of mining and reclamation on the hydrologic balance in the permit area and adjacent areas and to prevent material damage to the hydrologic balance outside the permit area. Once the ground water has been classified, the monitoring framework has been established, and a plan has been included in the permit application to indicate the location the standards will be met, a demonstration including the measures that will be taken to ensure the protection of the hydrologic balance is to be made.

The standards found in 327 IAC 2-11 are point specific. The rules require that a specific standard be met at a specific distance or location. An exceedance at one point, even if that point is outside the permitted area, may not constitute material damage to the hydrologic balance, a concept that by definition at 312 IAC 25-1-67 involves a hydrologic system existing in an area. Both the rules and this information bulletin have been developed in this context.

VI. GROUND WATER MANAGEMENT ZONE (the "GMZ")

The point of compliance in 327 IAC 2-11 is the boundary of the "GMZ". The standards established by 327 IAC 2-11 must be met at and beyond the GMZ as established in 312 IAC 25-6-12.5(d) and 312 IAC 25-6-76.5(d). The boundary of the GMZ will be established during initial permit review and may be modified in response to changes in operations plans or alterations of permit boundaries throughout the life of the mine. Ground water monitoring plans included in the permit application will provide the manner in which water quality at the GMZ boundary will be measured. The location of the boundary of the GMZ will be based on the location of drinking water wells or a distance from mining related activities identified in subdivision (1) of 312 IAC 12.5(d) or 312 IAC 25-6-76.5(d) of the rules. In general, the GMZ boundary will be established three hundred (300) feet from the edge of:

- (1) coal extraction areas;
- (2) coal mine processing waste disposal sites if not within coal extraction areas;
- (3) areas where coal is extracted by auger mining methods;

Agenda Item #16

- (4) locations at which coal is crushed, washed, screened, stored, and loaded at or near the mine site unless the locations are within the coal extraction areas; or
- (5) spoil deposition areas.

An exception to this condition will occur when the permit boundary or the extent of property controlled by the permittee is located at a distance less than three hundred (300) feet from areas requiring a GMZ. While the standards will apply at the boundary of the GMZ, ground water monitoring wells will be required at locations within the control of the mining company that are within the GMZ (i.e. less than 300 feet from the mining activities that define the GMZ). To minimize confusion, DOR will refer to those wells established within the GMZ as “interception wells.” Likewise, in the event a drinking water well is located within three hundred (300) feet of areas requiring a GMZ, and there is a likelihood of impact, a monitoring well (interception well) may be required between the drinking water well or wells and the activities that define the GMZ.

For underground mines, the GMZ boundary will normally be established at a distance of three hundred (300) feet from the edge of the area containing the surface effects of the mining operation. These include:

- (1) coal mine processing waste disposal sites;
- (2) locations at which coal is crushed, washed, screened, stored, and loaded at or near the mine site; or
- (3) underground development waste and spoil deposition areas.

As with the surface mines, a monitoring well will be required within the GMZ when the GMZ boundary falls on uncontrolled properties. When coal refuse is disposed in the underground works, the GMZ boundary will be modified to incorporate any area in which this activity occurred.

VII. Effective Date

This information bulletin becomes effective when notice is published in the Indiana Register that the Office of Surface Mining and Reclamation of the U.S. Department of the Interior has approved the rule amendments contained in Legislative Services Document #02-104(F).